



## BKS Environmental Associates, Inc.

August 17, 2020

Ms. Priscilla Burton, MS, CPSSc, CPM  
Sr. Environmental Scientist  
Division of Oil, Gas, & Mining, Price Field Office  
319 N. Carbonville Rd #C  
Price, Utah 84501-2351

Dear Ms. Burton,

Alton Coal Development, LLC (Alton) of Cedar City, Utah, has requested BKS Environmental Associates, Inc. (BKS) of Gillette, Wyoming to conduct a baseline soil survey. The baseline soil survey will include the proposed disturbed areas within the proposed Alt. K1 Permit Extension (APE) to the Coal Hollow Mine near Alton, Utah. In preparation for this baseline soil survey fieldwork, BKS has conducted the following information gathering, in conjunction with Alton personnel, to determine the extent of important farmlands, including Prime Farmlands, in the APE:

1. Review of the Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) online mapping for the APE. See the attached two maps: permit extension boundary overlain with WSS information; and, the proposed disturbance boundary overlain with WSS information.
2. Review of the Hydrographic Survey Maps from the Utah Division of Water Rights of the Alton area surveyed in 1968. Alton personnel combined these with the relevant mine boundaries in the "1968 Hydrographic Survey\_Combined.pdf". It does not indicate any irrigation ditches or use of irrigation water within the proposed disturbance boundary. These pdf's can be provided, as needed.
3. Alton personnel contacted the water master for the irrigation district in Alton who indicated there was never any attempt to irrigate any of the APE in the federal lease.
4. Review of the following internal report and photographs of areas common to the APE: Water Quality Characteristics of Kanab Creek and its Tributaries Near Alton, Kane County, Utah. August 2014. Prepared for Alton by Snell & Wilmer L.L.P. Salt Lake City, Utah. The report indicated generally incised channels and no past irrigation efforts. This report can be provided, as needed.

Based on the information above, Alton does not believe there are any important farmland soils within the APE that have historically or are currently used for cropland. Please review the attached WSS mapping information and provide Alton with confirmation of this determination. Your verbal or written confirmation is very much appreciated by September 1, 2020. If there are any questions or need for further information, please contact me at [bschladweiler@bksenvironmental.com](mailto:bschladweiler@bksenvironmental.com) or at (307) 686-0800.

Sincerely,

Brenda Schladweiler, Ph.D.  
BKS ENVIRONMENTAL ASSOCIATES, INC.

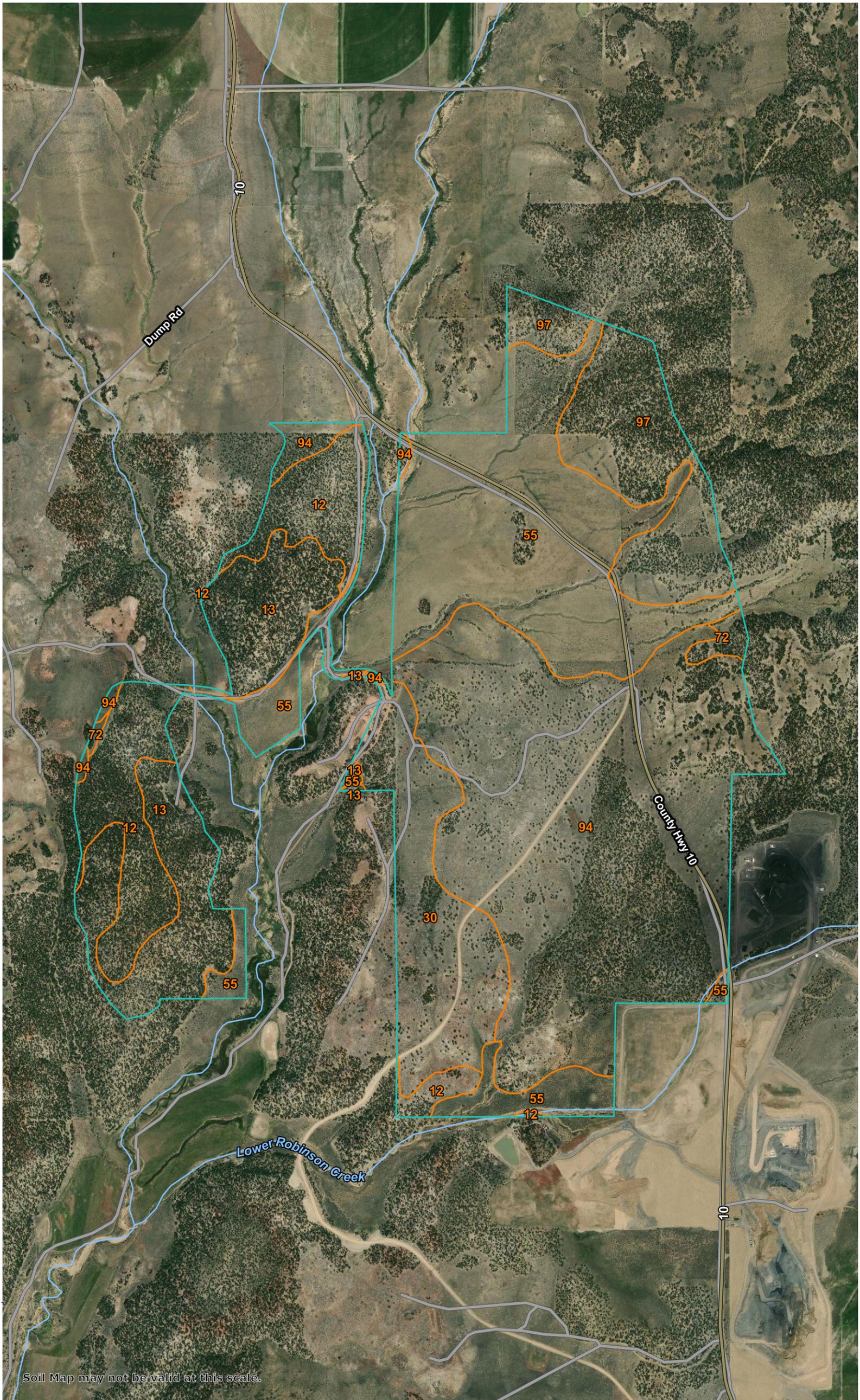
Soil Map—Kane County Area, Utah  
(Alton\_Disturbance)

112° 29' 2" W

112° 26' 59" W

37° 26' 0" N

37° 26' 0" N



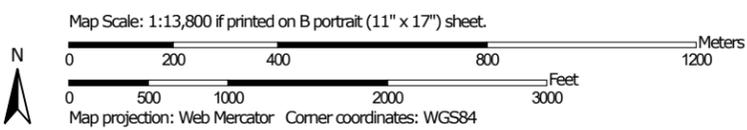
Soil Map may not be valid at this scale.

37° 23' 20" N

37° 23' 20" N

112° 29' 2" W

112° 26' 59" W



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:63,400.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kane County Area, Utah

Survey Area Data: Version 4, Sep 16, 2019

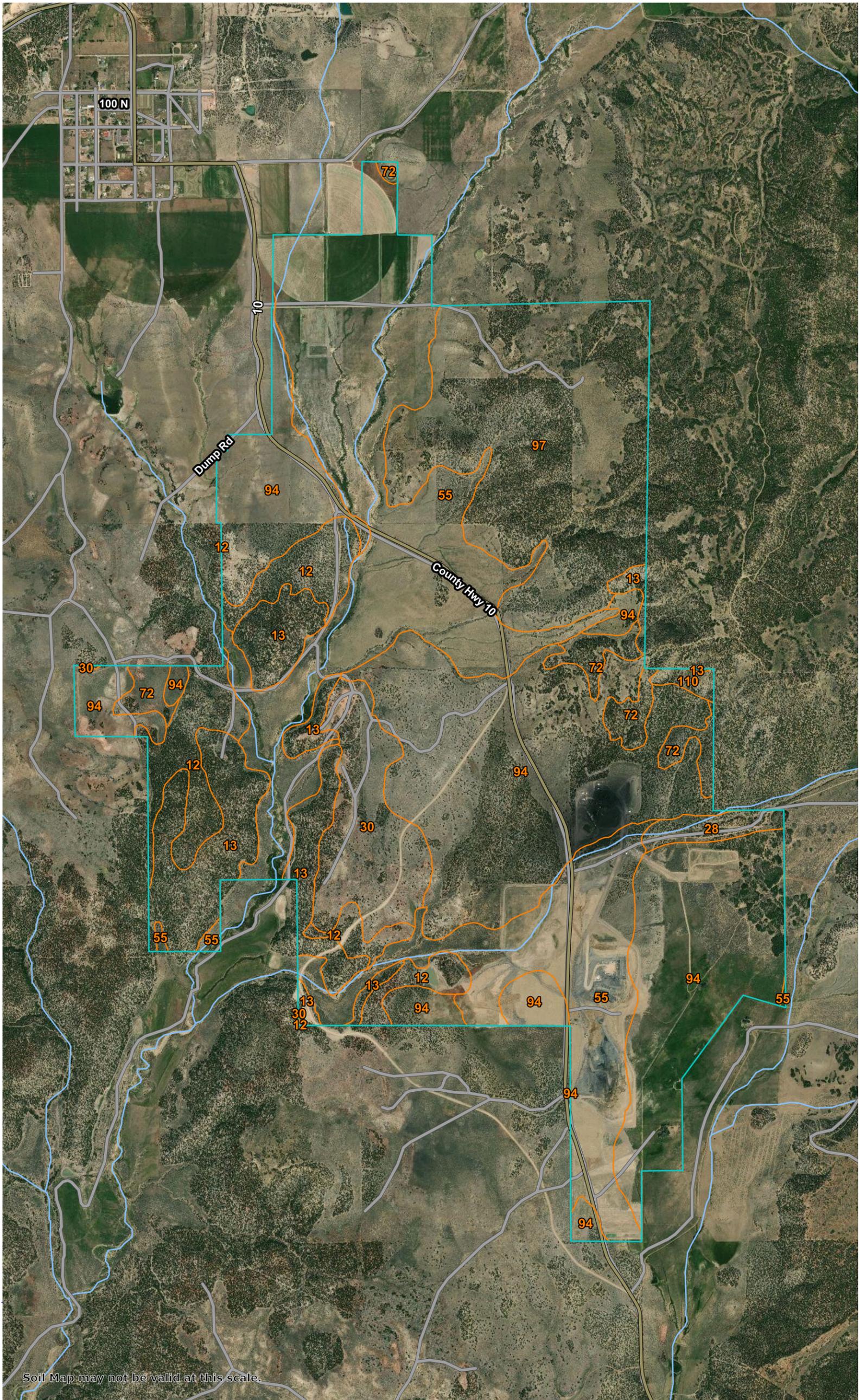
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 15, 2013—Jun 28, 2017

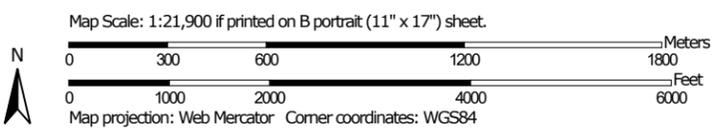
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12	Catdraw family-Orderville-Quezcan family complex, 15 to 35 percent slopes	93.0	9.6%
13	Catdraw-Quezcan-Vessilla complex, 35 to 60 percent slopes	105.8	11.0%
30	Flugle-Teromote-Skutumpah complex, 2 to 15 percent slopes	90.4	9.4%
55	Naplene-Teromote-Arboles-Oxyaquic Ustifluvents complex, 2 to 8 percent slopes	221.0	22.9%
72	Quezcan, deep-Sideshow-Orderville complex, 15 to 35 percent slopes	6.5	0.7%
94	Sili-Sideshow-Gypsic Haplustepts complex, 2 to 15 percent slopes	355.5	36.9%
97	Teromote-Caval-Zopilote family complex, 4 to 35 percent slopes	91.5	9.5%
<b>Totals for Area of Interest</b>		<b>963.8</b>	<b>100.0%</b>



Soil Map may not be valid at this scale.



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12	Catdraw family-Orderville-Quezcan family complex, 15 to 35 percent slopes	170.2	5.6%
13	Catdraw-Quezcan-Vessilla complex, 35 to 60 percent slopes	241.3	8.0%
28	Elpedro-Plumasano-Teromote family-Flatnose complex, 0 to 8 percent slopes	26.7	0.9%
30	Flugle-Teromote-Skutumpah complex, 2 to 15 percent slopes	142.6	4.7%
55	Naplene-Teromote-Arboles-Oxyaquic Ustifluvents complex, 2 to 8 percent slopes	874.1	28.9%
72	Quezcan, deep-Sideshow-Orderville complex, 15 to 35 percent slopes	73.7	2.4%
94	Sili-Sideshow-Gypsic Haplustepts complex, 2 to 15 percent slopes	999.2	33.1%
97	Teromote-Caval-Zopilote family complex, 4 to 35 percent slopes	482.1	16.0%
110	Zigzag family-Badland-Quezcan complex, 35 to 90 percent slopes	9.8	0.3%
<b>Totals for Area of Interest</b>		<b>3,019.8</b>	<b>100.0%</b>